## THE IMPORTANCE OF NONMOTIVATIONAL BEHAVIOR PATTERNS IN PSYCHIATRIC DIAGNOSIS AND TREATMENT\*

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In recent years the study of behavioral disturbances has been largely dominated by the psychodynamic approach. The major, though not exclusive, influence in this direction has been provided by the psychoanalytic movement, with its emphasis on the determination of various psychopathological phenomena by underlying purposes, motives and conceptualized goals and aims.

This orientation has enriched tremendously our knowledge of how much in human behavior that superficially appears to be aimless and meaningless may in reality involve patterns and structures of functioning of a purposive character. Unfortunately, however, the search for an underlying motive as the explanation for a specific item of irrational behavior has often involved the assumption that such a motive must exist. In other words, it is taken for granted that the behavior could not occur unless the individual possessed a purpose and aim, usually unconscious, which could produce such behavior. This assumption is encouraged by the very nature of psychodynamic formulations, such as repression, reaction formation and sublimation. Such concepts make it possible to explain any aspect of overt behavior as due to some postulated unconscious motive, whether the behavior corresponds to, or is opposite to, the motive.

Certain of the errors flowing from a one-sided preoccupation with psychodynamic formulations are relatively easy to detect. When the infant of a few months of age is endowed with complex ideas, such as omnipotence and guilt reactions, to explain its behavior, as is done in some of the psychoanalytic literature, it is clear that this is a speculation that ignores the fact that the development of cerebral functioning of the young infant cannot even approximate the level where such ideation is possible. When the motive-searching diagnostician ignores the possibility that physical illness may cause disturbances in behavior, the errors in diagnosis eventually become evident. When the therapist who is preoccupied with finding unconscious motives for all behavior tells

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the patient that his conscious solicitude and interest in his family must necessarily be a reaction-formation against an unconscious wish to injure those he loves, the destructive effect of such an interpretation is not obscure.

What is usually not so evident is that the psychodynamic bias, the demand that behavioral disturbances be interpreted in terms of some underlying determining motive, may hinder or even prevent the giving of serious attention to the nonmotivational determinants of behavior. If the study of disturbed behavior is approached without any assumption that it must always be purposive in character, then it becomes possible to delineate various nonmotivational patterns.

Levy² has called attention to one such category that he has called "capacity... the individual's ability, fitness and endowment." He describes limitations of capacity due to the underdeveloped level of conceptualization of a normal two-year-old child, as well as those due to specific effects of brain injury in other children. He indicates how errors in diagnosis could be and were made, if such limitations in capacity are interpreted as purposive behavior. Levy also suggests that there may be individual intrinsic differences in the capacity for mothering, quite like the distribution of IQ's, and that such variations should not be interpreted as due to the level of desire for the maternal role.

Various other workers have indicated that specific, stable patterns of motility,<sup>3</sup> perception,<sup>4</sup> autonomic responses<sup>5</sup> and biochemical functioning,<sup>6,7</sup> that are determined on a physiological, nonpurposive basis, may exist in different individuals. As several of these authors have suggested, it is possible that such physiological patterns may have a consistent, long-term effect on behavior, with an influence on its structure and direction.

The authors of the present paper have been engaged in a longitudinal study of child behavior since March 1956. A total of 85 children are being followed, including a previous group of seven children who have been observed from birth onward, and now range from eight to 14 years of age. The methodology and scheme of classification of the data have been reported previously.<sup>8, 9</sup> The material for the behavioral analysis is obtained by detailed histories taken in a specific, objective and factual fashion from the parents at frequent intervals, plus, in most cases, periods of direct observation of the child's behavior. The classification involves:

(1) the quality of responses; (2) the manner in which consistent, long-term responses are developed; (3) the modifiability of responses; (4) the general activity level; and (5) the threshold of sensory responses.

The quality of response is either positive, negative or neutral as regards individual items of behavior. Positive responses involve behavior oriented toward a continuation of involvement with the stimulus and/or reactions indicating pleasure. Negative responses involve behavior oriented toward a discontinuation of involvement with the stimulus and/or reactions indicating displeasure and discomfort. Neutral reactions are those which do not show either positive or negative features. Positive and negative responses are also characterized by differences in intensity—quiet, moderate, intense—and by whether the total behavior shows a predominance of either positive or negative responses. In some babies, responses tend to be differentiated, with varied gradations with different stimuli, while in others there tends to be one level of intensity of response.

The manner in which consistent, long-term responses are established also varies greatly from infant to infant. Some babies show a clear-cut definite response to a new stimulus which in general indicates the character of their subsequent response to that stimulus. In others, the first responses may be stereotyped or irregular and shifting, and the long-term response only becomes evident after a number of contacts with the stimulus. In one of the children, the initial response to a new situation has shown a special stereotyped character. This has involved not only intensely negative responses to new situations but a tendency toward a disorganization of previously established patterns. With continued contact, an adaptive response to the new situation finally emerges, together with a reintegration of the disorganized functioning. This was true in feeding and sleeping in early infancy, in first experiences in nursery school, in summer camp, in moves to new neighborhoods, and in a new type of learning situation in a special progress class in junior high school.

The modifiability of responses involves several aspects. In some infants, responses and routines, such as sleeping and feeding schedules, or dislikes of certain foods, can be quickly and easily changed by parental efforts. In others, responses once established are tenacious and difficult to modify. Some babies are easily dis-

tractable, so that a negative reaction, such as crying with hunger, can be easily modified by playing with them. At the opposite extreme, are the babies whose responses are diverted by a new stimulus only with difficulty and persistent effort.

Two additional categories of reaction can be delineated from the data. One involves the classification of the general activity level, the two extremes being the hyperactive and the passive child. The other is the threshold of sensory responses, that is, the intensity of sensory stimulation required to elicit a reaction from the organism.

The data indicates that each child has a specific type of reaction pattern to environmental stimuli, which shows itself in the first few months of life and which persists in a stable, consistent form throughout infancy and later childhood. Because of differences in life situations and levels of maturation as the child grows older, the same reaction pattern will show itself in very varied forms in actual behavior at different age periods. A qualitative analysis of all the records, and a quantitative item analysis thus far completed in 22 cases, indicates a high order of correlation in the consistency of the reaction pattern in each child at different age periods.

The available evidence, though as yet scanty, suggests that these patterns are inborn and not experientially determined. In any case, their appearance within the first few months of life before the infant is capable of forming any purposes or aims involving conceptualization means that these reaction patterns must be determined on some physiological basis. If the possibility is not considered that such non-purposive reactions may exist in the older child and influence the character of some of his behavioral responses, then it is likely that the error will be made of taking an exclusively psychodynamic approach to the analysis of such behavior. A few brief examples will be given. One girl has shown since early infancy intense negative reactions to the first contact with most new stimuli. This has persisted as she has grown older, so that at five years any injury or bruise, even very minor, elicited an immediate and loud, but brief, period of crying. Other annovances and frustrations at various age periods also occasioned sharp and intense negative reactions when they first occurred. The search for purpose would have led to the assumption of some unconscious reservoir of hostility which was triggered off and

brought to consciousness by various events. The writers have seen this kind of interpretation made to explain similar behavioral responses in adults, where the evidence actually suggested a greater likelihood of this type of intrinsic high-energy emotional response rather than any unconscious store of hostility. Another child's reactions since infancy have been characterized by a predominance of mild, positive responses to various situations. As he grew older this meant that he showed little or no disturbance, and, therefore, a lack of involvement in all sorts of petty or minor annoyances and difficulties created by other children. His mother, a professional worker in a psychiatric field, has interpreted this lack of anger and combativeness in such situations as being due to timidity and cowardice.

The ease or difficulty an individual child has in learning, whether in toilet training, school situations or athletics, may be determined. not only by his motivational level, but also by the character of his intrinsic reactions. Some children develop clear-cut, consistent and long-term patterns slowly and with difficulty, in contrast to others who form such patterns easily and quickly. This can be seen in the establishment of regular schedules in feeding and sleeping in early infancy, in the responses to play situations and initial situations of discipline and socialization at the one-to-two-yearold level, in the ease with which toilet training is developed, as well as in the more complex social and learning situations of later childhood. It is easy to misinterpret the reactions of the child who establishes patterns slowly and with difficulty as representing a motivated resistance or reluctance to learn. Such an interpretation by parents or teachers, expressed in a critical fashion to the child, may actually stimulate the secondary development of such resistance and dislike for learning, which may then be interpreted by the psychiatrist as the primary factor.

It appears to be a tendency of the human mind to explain obscure and unclear phenomena in motivational terms. Primitive man explained earthquakes, floods, disease and all sorts of other natural phenomena as the expressions of the purposes of the gods. Piaget, in his studies of the thinking of the young child, finds that, "The idea of the fortuitous does not exist; causality presupposes a 'maker,' God, the parents, etc., and the questions refer to the intention which he may have had. ... Organic life is, for the child, a sort of story, well regulated according to the wishes

and intentions of its inventor... Causal explanation and logical justification in particular are still entirely identified with motivation." <sup>110</sup>

The adult in present-day society may be clear that natural phenomena are not caused by human purposes, but he does tend to assume that behavior is so produced. Even the functionings of animals and plants are commonly designated by motivations. A bee "seeks" food in a flower, a caged bird "wants" its freedom, the roots of a plant spread out "in search" of water. With human behavior, the motivational explanation is ubiquitous. Psychiatric patients constantly formulate explanations of the obscurities of their own behavior, and of that of other people with whom they are involved, in terms of some underlying purpose.

The psychiatrist who automatically thinks along similar lines may not be able to help the patient correct such judgments when they are inaccurate and destructive. As an example, one patient came to his psychotherapeutic session one day with the statement that an incident had occurred the night before which indicated that his wife really did not wish to work out the problems which were seriously disturbing their relationship. He had suggested to her that evening that they should sit down and discuss these problems. She agreed promptly and said that she could do it as soon as she had finished putting the children to bed. She went upstairs and he waited for her, busying himself in the meantime with work of his own. After several hours he suddenly realized that she had not come down and that it was now too late in the evening for the discussion. He went upstairs and found that she had been absorbed in various routine chores. She expressed surprise at the passage of time, and insisted that she did want the discussion. However, he felt that her behavior could only be due to a resistance to the consideration of their problems and indicated this to her. After reporting this incident with his derogatory evaluation of his wife's motives, the question was raised with him as to whether his wife showed any difficulties in estimating the passage of time in other situations. He immediately recalled that this was a chronic problem of hers, that she was always making gross errors in time judgments, even when there could be no doubt of her desire to be punctual. This difficulty of hers was actually a long-standing joke in her family, going back to her girlhood days. It became clear that her behavior the night before was much more likely due to

this problem with time estimation, rather than to any desire to avoid a discussion, and this interpretation was confirmed by subsequent events. It was also evident that if his derogatory judgment of her had not been questioned, it would have served as a further stimulus to the disruption of their relationship.

This kind of immediate assumption of undesirable motives as necessarily underlying behavior which is not optimal in a particular situation is a characteristic attitude of patients in psychotherapy. This assumption involves the question of their own behavior, as well of their spouses, children, parents, friends or coworkers. Sometimes they are right, at other times the motives may be there but misinterpreted. In the writers' clinical experience, however, there are many situations in which such judgments of purpose are made where the behavior in question is actually determined by limitations of capacity, intrinsic reaction patterns or unrecognized physical illnesses. Where undesirable motives are incorrectly ascribed to the other person, this frequently leads to deterioration of the interpersonal relationship. Where they are ascribed to himself by the patient, they lead to increased feelings of guilt, anxiety and inferiority.

The detection of a nonmotivational behavior pattern does influence the approach to treatment. Where disturbed behavior is due to an underlying purpose, the direction of treatment usually involves the attempt to change or modify this motive in such a way that the undesirable behavior will be altered. If, however, the behavior is nonmotivational in character, a search for an underlying purpose will be fruitless. The approach to therapy in such situations should be different if it is to be effective. What is necessary is a modification of functioning so that the destructive aspects of such a nonmotivational pattern are minimized and so that it is channeled as much as possible in constructive directions. Where a limitation of capacity exists, such as sensory defect, mental retardation, or impulsive and un-co-ordinated behavior due to brain injury, psychotherapy should be integrated into an overall program of training and rehabilitation.

Where an intrinsic reaction pattern or special motility or perceptual functioning produces behavior which in one way or another is undesirable, effective treatment must start from the understanding that such behavior is not due to unhealthy and destructive purposes hidden within the patient. The delineation of this fact is itself of great value in relieving the guilt and self-derogation of the patient, or the anxiety and condemnation of the parent if a child is involved. The patient or family should then be guided in the development of responses which will minimize the undesirable effects of the pattern. For example, a girl with immediate intense emotional reactions to new situations had difficulties when a negative response resulted either in withdrawal from the situation or the expression of excessive irritation and antagonism, which alienated other people. This patient had to learn to inhibit such undesirable expressions when she experienced an initial, intense emotional reaction and to wait until this subsided before involving herself in a behavioral response to the situation.

A boy who formed long-term patterns slowly and irregularly, with consequent difficulty in achieving a mastery of various learning situations, felt that he was "stupid" and "couldn't learn." An approach to this problem involved an insistence on frequent and regular drilling, with the demonstration that this did result in effective learning with no evidence of intellectual deficiency.

The parents of a hyperactive, hypermotile three-year-old child tried to set limits for his physical activity appropriate to the level of the average child. They became involved in constant attempts at prohibitions and restraints of his activity, with negativistic responses by the child, followed by the development of hostility and guilt feelings in the parents. Treatment involved, first, the achievement of an understanding by the parents of the intrinsic character of this extreme motility pattern and the necessity for their acceptance of it as an integral part of their child's functioning. A program involving the restriction of prohibitions to a minimum of essential issues and the channeling of the child's activity into various constructive play situations was developed. This resulted in the disappearance of the negativism in the child and of the hostility and guilt in the parents and the development of a healthy, positive parent-child interaction.

This report has focused on various types of nonmotivational behavior patterns and their importance in both diagnostic evaluation and treatment. This is not to question the fact that conceptualized purposes and aims play a vital role in the development of human behavior and psychopathology. The issue is whether these psychodynamic forces are always and necessarily the exclu-

sive determinants in a patient's psychological disturbance or whether factors on a nonmotivational level may not also be important in many cases.

## SUMMARY

Behavioral disturbances may involve not only motivational forces in the form of purposes and conceptualized goals and aims, but also nonmotivational factors. These latter include limitations in capacity, such as the results of incomplete maturation or brain injury, specific patterns of motility, perception or biochemical functioning, and various types of consistent, stable, intrinsic reaction patterns. The lack of recognition of such nonmotivational factors, when they exist, and the incorrect assumption that the behavioral disturbances are the exclusive result of underlying purposes can lead to significant errors in diagnosis and therapy.

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## REFERENCES

- Klein, Melanie: Mutual influences in development of ego and id. In: Psychoanalytic Study of the Child. Vol. 7, p. 25. International Universities Press. New York. 1952.
- 2. Levy, David M.: Capacity and motivation. Am. J. Orthopsychiat., 27:1, 1957.
- Fries, Margaret E., and Woolf, Paul J.: Some hypotheses on the role of the congenital activity type in personality development. In: Psychoanalytic Study of the Child. Vol. 8, pp. 48-62. International Universities Press. New York. 1953.
- Tyler, Leona E.: The Psychology of Human Differences. Second edition. Pp. 225-226. Appleton-Century-Crofts. New York. 1956.
- 5. --: op. cit., p. 437.
- 6. Williams, Roger V.: Biochemical Individuality. Wiley. New York. 1956.
- Mirsky, I. Arthur: Psychoanalysis and the biological sciences. In: Twenty Years
  of Psychoanalysis. Pp. 155-176. Franz Alexander and Helen Ross, editors.
  Norton. New York, 1953.
- Thomas, Alexander, and Chess, Stella: An approach to the study of sources of individual differences in child behavior. J. Clin. and Exper. Psychopathol., 18:347, 1957.
- Intrinsic Reaction Patterns: A Factor in Personality Development. Paper
  presented at New York divisional meeting of the American Psychiatric Association, November 15, 1957.
- Piaget, Jean: Language and Thought of the Child. Pp. 178-181. Rutledge and Kegan Paul. London, 1932.